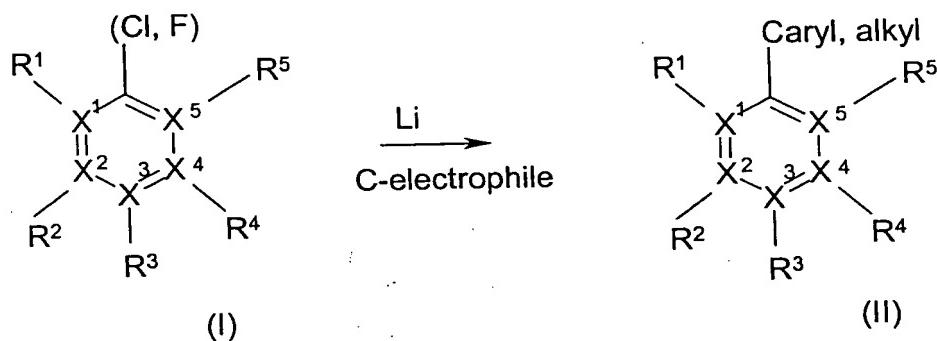


What is claimed is:

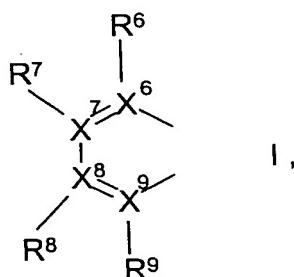
1. A process for preparing compounds of the formula (II),



where the substituents R¹ to R⁵ are each independently H, CH₃, straight-chain or branched C₁-C₈-alkyl, CH(OC₁-C₅-alkyl)₂, CH(C₁-C₅-alkyl)(OC₁-C₅-alkyl), CH₂(OC₁-C₅-alkyl), CH(CH₃)(OC₁-C₅-alkyl), C₁-C₈-alkoxy, N(C₁-C₅-alkyl)₂, phenyl, substituted phenyl, aryl, heteroaryl, S(C₁-C₅-alkyl) or a radical C_{aryl}, alkyl, and

alkyl, and the symbols X^1 to X^5 are each carbon or a maximum of two neighboring carbon atoms, nitrogen or X^1R^1 and X^2R^2 together are O, NH, N(C_1-C_5 -alkyl), N($C=O-C_1-C_5$ -alkyl), N($SiR_3)_2$ or S,

or where neighboring radicals R¹ to R⁵ form the following structural unit,



where X^6 to X^9 and R^6 to R^9 have the same meaning as X^1 to X^5 and R^1 to R^5

and

the radical $C_{aryl, alkyl}$ is straight-chain or branched, substituted or unsubstituted C_1-C_8 -alkyl, 1-hydroxyalkyl having from 1 to 8 carbon atoms, CN, 2-hydroxyalkyl having from 2 to 5 carbon atoms, 3-hydroxyalkyl having from 3 to 5 carbon atoms, 1-NHR-alkyl having from 1 to 5 carbon atoms, $CH(OC_1-C_5-alkyl)_2$, $C(C_1-C_5-alkyl)(OC_1-C_5-alkyl)$, $CH_2(OC_1-C_5-alkyl)$, $CH(CH_3)(OC_1-C_5-alkyl)$, C_1-C_5 -alkoxy, $N(C_1-C_5-alkyl)_2$, phenyl, substituted phenyl, aryl, heteroaryl, CO_2H , CO_2 alkyl, $(C=O)_{0.5}$, substituted 1-vinylalkyls, $CH_3-C(=O)$, R- $C(=O)$ or CHO,
which comprises reacting chloro- or fluoroaromatics of the formula (I) with carbon electrophiles and lithium metal.

2. The process as claimed in claim 1, wherein the carbon electrophile is selected from the group consisting of:

aryl or alkyl cyanates ($C_{aryl, alkyl} = CN$)
oxirane, substituted oxiranes ($C_{aryl, alkyl} = CH_2CH_2OH$, substituted CR_2CR_2OH)
azomethines ($C_{aryl, alkyl} = CR^1_2-NR'H$)
nitroenolates ($C_{aryl, alkyl} = oximes$)
immonium salts ($C_{aryl, alkyl} = amines$)
haloaromatics, aryl triflates, other arylsulfonates ($C_{aryl, alkyl} = aryl, heteroaryl$)
carbon dioxide ($C_{aryl, alkyl} = COOH$)
carbon monoxide ($C_{aryl, alkyl} = (-CO-)_{0.5}$)
aldehydes, ketones ($C_{aryl, alkyl} = CHR^1-OH, CR^1_2-OH$)
 α, β -unsaturated aldehydes/ketones ($C_{aryl, alkyl} = CH(OH)-vinyl, CR^1(OH)-vinyl$)
ketenes ($C_{aryl, alkyl} = C(=O)CH_3$ in ketene, $C(=O)-R$ in substituted ketenes)
alkali metal and alkaline earth metal salts of carboxylic acids ($C_{aryl, alkyl} = CHO$ in formates, $COCH_3$ in acetates, R^1CO in $R^1COOMet$)
aliphatic nitriles ($C_{aryl, alkyl} = COCH_3$ in acetonitrile, R^1CO in R^1CN)
aromatic nitriles ($C_{aryl, alkyl} = COAr'$)
amides ($C_{aryl, alkyl} = CHO$ in $HCONR^1_2$, $C(=O)R^1$ in $R^1CONR^2_2$)

esters ($C_{\text{aryl,alkyl}} = [\text{C(OH)}R^1]_{0.5}$) or alkylating agents ($C_{\text{aryl,alkyl}} = \text{alkyl}$).

3. The process as claimed in claim 1, wherein the reaction is performed at a temperature in the range from -100 to $+80^\circ\text{C}$.
4. The process as claimed in claim 1, wherein lithium is used in the form of a dispersion, powder, turnings, sand, granules, pieces or in the form of bars.
5. The process as claimed in claim 1, wherein the solvent used is an aliphatic or aromatic ether, a hydrocarbon or an amine which does not carry a hydrogen on the nitrogen atom, preferably triethylamine, diethyl ether, tetrahydrofuran, toluene, toluene-THF mixtures, anisole and diisopropyl ether, more preferably toluene, THF or diisopropyl ether.
6. The process as claimed in claim 1, wherein the process is performed as a one-pot process.
7. The process as claimed in claim 1, wherein the organolithium compound is first generated and then reacted with the carbon electrophile at the same or a slightly different temperature.
8. The process as claimed in claim 1, where the straight-chain or branched $C_1\text{-}C_8\text{-alkyl}$ is a $C_1\text{-}C_y\text{-alkyl}$ and the $C_1\text{-}C_8\text{-alkoxy}$ is a $C_1\text{-}C_y\text{-alkoxy}$.
9. The process as claimed in claim 2, wherein the reaction is performed at a temperature in the range from -100 to $+80^\circ\text{C}$.

10. The process as claimed in claim 2, wherein lithium is used in the form of a dispersion, powder, turnings, sand, granules, pieces or in the form of bars.
11. The process as claimed in claim 2, wherein the solvent used is an aliphatic or aromatic ether, a hydrocarbon or an amine which does not carry a hydrogen on the nitrogen atom, preferably triethylamine, diethyl ether, tetrahydrofuran, toluene, toluene-THF mixtures, anisole and diisopropyl ether, more preferably toluene, THF or diisopropyl ether.
12. The process as claimed in claim 2, wherein the process is performed as a one-pot process.
13. The process as claimed in claim 2, wherein the organolithium compound is first generated and then reacted with the carbon electrophile at the same or a slightly different temperature.
14. The process as claimed in claim 3, wherein lithium is used in the form of a dispersion, powder, turnings, sand, granules, pieces or in the form of bars.
15. The process as claimed in claim 3, wherein the solvent used is an aliphatic or aromatic ether, a hydrocarbon or an amine which does not carry a hydrogen on the nitrogen atom, preferably triethylamine, diethyl ether, tetrahydrofuran, toluene, toluene-THF mixtures, anisole and diisopropyl ether, more preferably toluene, THF or diisopropyl ether.
16. The process as claimed in claim 3, wherein the process is performed as a one-pot process.

17. The process as claimed in claim 3, wherein the organolithium compound is first generated and then reacted with the carbon electrophile at the same or a slightly different temperature.
18. The process as claimed in claim 4, wherein the solvent used is an aliphatic or aromatic ether, a hydrocarbon or an amine which does not carry a hydrogen on the nitrogen atom, preferably triethylamine, diethyl ether, tetrahydrofuran, toluene, toluene-THF mixtures, anisole and diisopropyl ether, more preferably toluene, THF or diisopropyl ether.
19. The process as claimed in claim 4, wherein the process is performed as a one-pot process.
20. The process as claimed in claim 4, wherein the organolithium compound is first generated and then reacted with the carbon electrophile at the same or a slightly different temperature.